Dedicated to People Flow<sup>™</sup>



INNOVATOR AND LEADER OF GEARLESS TRACTION ELEVATOR TECHNOLOGY

# KONE EcoSystem MR™

# The revolutionary KONE EcoDisc® elevator technology

KONE EcoDisc hoisting machines are highly energy efficient, remarkably lightweight and create more usable space, requiring only half the overhead machine room space of a traditional traction elevator.

- KONE has more than 15 years of experience with the KONE EcoDisc technology
- KONE's EcoDisc provides the same next-generation elevator technology for low-, mid- and high-rise applications
- KONE has sold and installed more than 440,000 EcoDisc machines worldwide
- KONE's EcoDisc technology has successfully helped projects earn LEED® credits in the Energy & Atmosphere and Innovation & Design categories

#### Optimal sustainability, lower installation costs

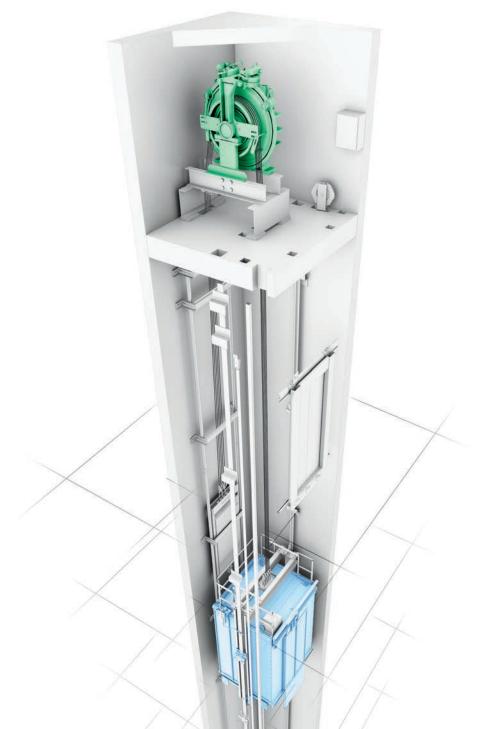
The KONE EcoDisc hoisting machine has an optimized power factor, so the motor consumes less power and produces less heat than traditional traction elevators. Energy savings can be up to 50% when compared to standard in-class solutions.

Additionally, the KONE EcoDisc has a reduced starting current demand that uses a smaller mainline feeder and emergency generator, reducing general construction costs.



# The logical solution for your mid- to high-rise building

- Superior ride quality
- Creates more usable space
- Energy efficient
- Environmentally focused no oil
- Overhead machine and control space
- Reduces construction costs
- Improved floor-to-floor times
- Proven reliability
- Variety of choices in size, decoration, signalization and options





#### **KONE Polaris™ Destination Control**

The KONE Polaris destination control system for passenger elevators can dramatically improve vertical transportation in residential buildings, office buildings, hotels and business complexes. With its wide and flexible range of visual designs, elevator call personalization and security options, Polaris will also have a positive impact on the look and feel of the entire building.

Whether in a large office building, a hotel or residential complex, the purpose of the KONE Polaris is the same:

- To benefit building owners by increasing efficiency
- To benefit passengers by increasing comfort and reducing journey times
- To benefit occupants by increasing security and peace of mind

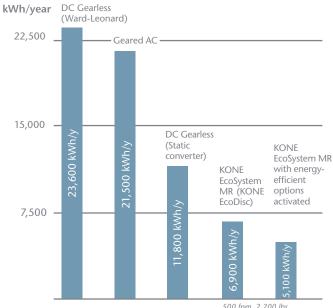
#### Simply a better way to travel

KONE Polaris uses artificial intelligence to learn and forecast the traffic flows of the building. When the traffic intensity alters, the control system measures the changed traffic patterns and switches its optimization accordingly. With KONE Polaris, passengers select their destination before being guided to an elevator that has been assigned to take them, and a limited number of passengers, to a specific range of floors. Because they have been assigned to a specific elevator, boarding is calm and orderly.

#### Leading the way with eco-efficient solutions

The KONE EcoSystem MR<sup>™</sup> is one of the most environmentally sound elevator concepts in the industry. Based on KONE EcoDisc® technology, it incorporates KONE's commitment to deliver solutions that use less energy and recycle as many products and components as possible.

The cost of owning an elevator is made up of three components: the purchase price, the cost of maintenance and the running costs. Thanks to their dependability and energy-efficiency, KONE elevators significantly reduce the total cost of ownership.









KONE has constantly been the forerunner in developing the most energy-efficient elevator hoisting technology in the industry, as can be seen in the chart below. The annual energy consumption of a typical mid-size elevator has been reduced from over 20,000 kWh to one third. The latest KONE energy-saving options can squeeze this consumption even further, to close to 5,000 kWh/year.

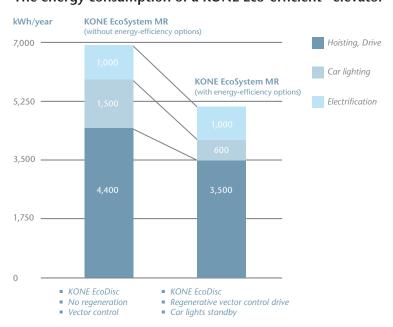
- The energy-efficient KONE EcoDisc consumes up to 50% less than conventional traction machines and produces less heat
- KONE's EcoDisc, with no oil required, removes the need for repeated lubrication, cleanup and disposal of hazardous waste materials, all of which are found with conventional systems

#### **Regenerative System\***

The energy consumption of a KONE EcoSystem MR is further reduced with the installation of a Regenerative Drive System.

- Recovers excess energy from the elevator when the KONE EcoDisc motor acts as a generator
- This most notably occurs with an empty car traveling UP or a full car traveling DOWN
- Can recover up to 25% of the total energy used by an elevator
- Produces clean and safe energy that does not damage the network
- Carbon footprint reduction: 14,109 lbs. (6,400 kg) CO<sub>2</sub>/year compared to a non-regenerative drive
- \*The basis for the calculations for regenerative systems is: an elevator speed of 11.5 ft/s (3.5 m/s), load of 3,527 lbs. (1,600 kg), travel distance of 492 ft. (150 m), and 600,000 starts/year.

#### The energy consumption of a KONE Eco-efficient™ elevator



# Aesthetic options for your new elevator

The KONE EcoSystem  $MR^{\text{TM}}$  elevator offers a wide selection of cabs, entrances and signalization to enhance the look of your building at an affordable price.

For KONE, the goal is to create the best possible user experience. A smooth ride and reliable performance ensure the ideal people flow, while the car interior design creates an aesthetically pleasing experience for each passenger.

#### **Handrails**



1.5" Flat in Stainless Steel with Satin finish



2" Flat in Stainless Steel with Satin finish



**4" Flat** in Stainless Steel with Satin finish

For additional aesthetic offerings, reference the KONE Design Collection Catalog or visit www.kone.us to create project-specific designs with the KONE Car Designer Tool.

#### Ceilings

Several ceiling designs are available for KONE EcoSystem MR elevator cabs.



**Panels** – Polygal Translucent **Frame** – Brushed Aluminum **Lighting** – T-5 Fluorescent



Panels – Stainless Steel with Satin Finish Lighting – T-5 Fluorescent



**Panels** – Stainless Steel with a Satin Finish **Lighting** – T-5 Fluorescent



Panels – Stainless Steel or Bronze with a Satin or Mirror Finish Lighting – Round LED\*



**Panels** – Stainless Steel or Bronze with a Satin or Mirror Finish **Lighting** – Square LED\*



**Panels** – Stainless Steel or Bronze with a Satin or Mirror Finish **Lighting** – Rectangular LED\*

<sup>\*</sup>Six light fixtures for Passenger Shape and nine light fixtures for Service Shape.

#### Walls

Choose from a wide variety of high-quality interior materials. Multiple combinations of wall and ceiling materials are available, allowing you to match virtually any lobby design.

KONE provides urea-formaldehyde free raised wood panels, which meet the requirement for the IEQ4.4 in the LEED rating system.



For additional aesthetic offerings reference the KONE Design Collection Catalog, or visit www.kone.us for the latest job-specific Cab Designer Tool, CAD drawings and specifications.

#### **Color Laminate Finishes**

4757-60\* 4911-38\* Mystique Moonlight Soft Gold Mesh ES2002T\*\* 4796-60\* Burnished Chestnut Honeytone Essence 4744-60\* 4813-60\* Nickel Ev Karratha Brush 4746-60\* 4669-60\* Woolamai **Natural Tigris** 4623-60\* WZ1001T\*\* Graphite Nebula Red Dragon Bamboo MV310\*\*\* Kazu

#### **Premium Metal Finishes**

6258\*
Satin Brushed Gold

M4254\*\*\*
Brushed Black Aluminum

M6486\*\*\*
Plex Bronzetoned

6261\*
Satin Brushed Light Bronze

6277\*
Alumasteel

Scottish Quad Rigidized
Stainless Steel

Brushed Stainless Steel

#### **Wood Laminate Finishes**

10776-60\* 7850-60\* Beigewood Kensington Maple 7919-38\* 7062-60\* Congo Spruce Amber Cherry 7054-60\* 7039-60\* Wild Cherry Windsor Mahogany 7949-38\* 7040A-60\* Asian Night Figured Mahogany

#### **Pearlescent Finishes**

D487-07\*
Pearl Silver LS

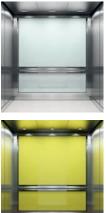
D485-07\*
Pearl Bisque LS

#### Laminate Brands

- \* Wilsonart
- \*\* Nevamar
- \*\*\* Formica
- \*\*\*\* Pionite

#### Glass-back walls

Full width/Full height Clear/Colored glass







## Customization options

With the availability of custom cab finishes, virtually any type of material can be used to achieve the impression you are looking for. Finishes include various metals, real stone veneers of marble or granite, glass and mirrors, and a wide range of wood veneers. Add to these choices the numerous ceiling designs and metal options and the possibilities are virtually limitless. Contact a KONE Sales Professional to learn more.



#### Signalization

KSS 140 vandal resistant signalization is impact, scratch, burn and splash resistant.

KSS 570 enhances the look of your elevator and is available in both flush and swing mounted configurations.



For additional aesthetic offerings reference the KONE Design Collection Catalog, or visit www.kone.us for the latest project-specific Cab Designer Tool, CAD drawings and specifications.

### KONE EcoSystem MR™

#### Planning Guide

Max Travel 590 ft. (180 m) **Max Landings** 63

Speed 200, 350, 400, 500, 700 fpm (1.00, 1.78, 2.00, 2.54, 3.56 m/s)

Car Height F 8, 9 or 10 ft.

(2438, 2743 or 3048 mm)

**Entrance Height G** 7, 8 or 9 ft. (2134, 2438 or 2743 mm)

Clear Overhead I and Pit Depth J

				Α	A SEISMIC	В	C	D	E
		CAPACITY lbs. (kg)	OPENING TYPE	HOISTWAY WIDTH (mm)	HOISTWAY WIDTH (mm)	HOISTWAY WIDTH (mm)	INTERIOR WIDTH (mm)	INTERIOR DEPTH (mm)	DOOR WIDTH (mm)
		2000 (907)	SSP	7'-4" (2235)	7'-8" (2337)	6'-10" (2083)	5'-8½" (1740)	4'-31/4" (1302)	3'-0" (914)
	PASSENGER	2500 (1134)	SSP-CO	8'-4" (2540)	8'-8" (2642)	6'-8" (2032)	6'-8½" (2045)	4'-31/4" (1302)	3'-6" (1067)
ng		3000 (1361)	SSP-CO	8'-4" (2540)	8'-8" (2642)	7'-2" (2184)	6'-8½" (2045)	4'-9¼" (1454)	3'-6" (1067)
Opening		3500 (1588)	SSP-CO	8'-4" (2540)	8'-8" (2642)	7'-10" (2388)	6'-8½" (2045)	5'-5¼" (1657)	3'-6" (1067)
		4000 (1814)	CO	9'-4" (2845)	9'-8" (2946)	7'-10" (2388)	7'-8½" (2350)	5'-51/4" (1657)	4'-0" (1219)
Front		4000 (1814)	2SP	8'-1" (2464)	8'-4" (2540)	9'-2" (2794)	5'-8½" (1740)	7'-6" (2286)	4'-0" (1219)
Fro	SERVICE	4500 (2041)	2SP	8'-1" (2464)	8'-4" (2540)	9'-8" (2946)	5'-8½" (1740)	8'-0" (2438)	4'-0" (1219)
		5000 (2268)	2SP	8'-1" (2464)	8'-4" (2540)	10'-2" (3099)	5'-8½" (1740)	8'-73/4" (2635)	4'-6"* (1372)
		5000 AIA (2268)	2SP	8'-8" (2642)	8'-11" (2718)	10'-7¾" (3245)	5'-8½" (1740)	9'-0" (2743)	4'-6"* (1372)
g		2000 (907)	SSP	8'-4" (2540)	8'-8" (2642)	6'-3¼" (1911)	5'-8½" (1740)	4'-3¾" (1314)	3'-0" (914)
pening	PASSENGER	2500 (1134)	SSP-CO	9'-4" (2845)	9'-8" (2946)	6'-3¼" (1911)	6'-8½" (2045)	4'-3¾" (1314)	3'-6" (1067)
Оре	SEN	3000 (1361)	SSP-CO	9'-4" (2845)	9'-8" (2946)	6'-9¼" (2064)	6'-8½" (2045)	4'-9¾" (1467)	3'-6" (1067)
-	PAS	3500 (1588)	SSP-CO	9'-4" (2845)	9'-8" (2946)	7'-51/4" (2267)	6'-81/2" (2045)	5'-5¾" (1670)	3'-6" (1067)
everse		4000 (1814)	CO	10'-4" (3150)	10'-8" (3251)	7'-5¼" (2267)	7'-8½" (2350)	5'-5¾" (1670)	4'-0" (1219)
Front & Rev	SERVICE	4000 (1814)	2SP	8'-1" (2464)	8'-4" (2540)	10'-1" (3073)	5'-8½" (1740)	7'-6½" (2299)	4'-0" (1219)
		4500 (2041)	2SP	8'-1" (2464)	8'-4" (2540)	10'-7" (3226)	5'-8½" (1740)	8'-0½" (2451)	4'-0" (1219)
		5000 (2268)	2SP	8'-1" (2464)	8'-4" (2540)	11'-2¾" (3423)	5'-8½" (1740)	8'-81/4" (2648)	4'-6"* (1372)
Ţ		5000 AIA (2268)	2SP	8'-8" (2642)	9'-0" (2743)	11'-6¾" (3524)	5'-8½" (1740)	9'-0" (2743)	4'-6"* (1372)

<sup>\* 4&#</sup>x27;-0" (1219 mm) door width also available

	200 FPM		350 FPM		400 FPM		500 FPM		700 FPM (1,2,3)	
	1.00 m/s		1.78 m/s		2.03 m/s		2.54 m/s		3.56 m/s (1,2,3)	
CAPACITY lbs. (kg)	PIT DEPTH (mm)	CLEAR OVERHD (mm)								
2000	-	-	-	-	-	-	-	-	10'-6"	21'-0"
(907)	-	-	-	-	-		-	-	(3200 mm)	(6401)
2500-3500	5'-3"	14'-1"	5'-6"	14'-7"	6'-0"	14'-11"	6'-10"	15'-8"	10'-6"	21'-0"
(1134-1588)	(1600)	(4292)	(1676)	(4445)	(1829)	(4547)	(2083)	(4775)	(3200)	(6401)
4000	5-'3"	14'-1"	5'-6"	14'-7"	6'-0"	14'-11"	6'-10"	15'-8"	-	-
(1814)	(1600)	(4292)	(1676)	(4445)	(1829)	(4547)	(2083)	(4775)	-	
4500	5-'3"	14'-7"	5'-6"	15'-1"	6'-0"	15'-5"	6'-10"	16'-2"	-	-
(2041)	(1600)	(4445)	(1676)	(4597)	(1829)	(4953)	(2083)	(4928)	-	
5000	5-'3"	14'-7"	5'-6"	15'-1"	6'-0"	15'-5"	6'-10"	16'-2"	-	-
(2268)	(1600)	(4445)	(1676)	(4597)	(1829)	(4953)	(2083)	(4928)	-	
5000 AIA	5'-6"	14'-9"	5'-8"	15'-1"	7'-2"	16'-2"	7'-2"	16'-2"	-	-
(2268)	(1676)	(4496)	(1727)	(4597)	(2184)	(4928)	(2184)	(4928)	-	

# Section View Plan Views E -**H** (8) (2) B D (4) Machine Room TRAVEL

#### **Notes**

(1) For speeds above 700 fpm (3.56 m/s) or travel above 590' (180 m) contact your KONE Sales Professional for design and planning assistance.

(5)

- (2) For 700 fpm (3.56 m/s) front opening passenger configurations add 2" (51 mm) to the hoistway depth B.
- (3) Information is based upon chain compensation. For rope compensation applications, please consult your KONE Sales Professional.
- (4) All dimensions are based on an 8'-0" (2,438 mm) cab with a 7'-0" (2,134 mm) door. Alternate car and door heights are available, but will affect dimension 1.
- (5) If occupied space exists below the hoistway, consult your KONE Sales Professional.

- (6) Information is based upon structural machine room floor slabs. For machine beam applications, please consult your KONE Sales Professional.
- (7) Machine room height of 8'-0" (2,438 mm) is measured from the machine room floor surface to underside of the lowest obstruction above the machine . Consult your KONE Sales Professional for details.
- (8) For service applications the machine room is not centered on the hoistway and requires an additional 7" (178 mm) of width. The additional 7" (178 mm) should be added to the counterweight side. Consult your KONE Sales Professional for details.

Visit www.kone.us for the latest project-specific details, BIM models, CAD drawings, specifications, electrical data, reaction loads and building access requirements.

(9)



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